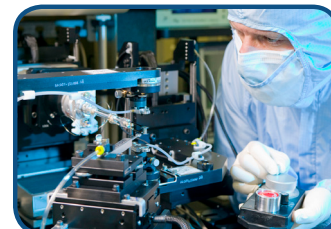
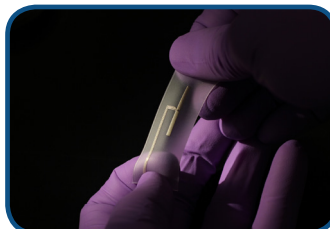
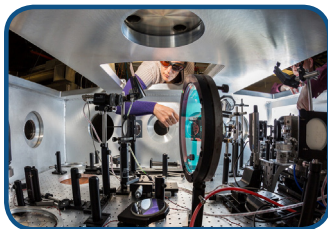


LAWRENCE LIVERMORE NATIONAL LABORATORY



CALIFORNIA ECONOMIC IMPACT – FY 2014



Through business and community partnerships, the science and technology at LLNL positively impact the state's economy.

Lawrence Livermore National Laboratory (LLNL) is the premier research and development facility for science and technology solutions to some of our nation's greatest challenges. It is supported by approximately 6,300 employees who serve in an array of scientific, technical and specialized fields.

Managed by Lawrence Livermore National Security, LLC (LLNS) for the U.S. Department of Energy (DOE), LLNL's funding largely comes from the National Nuclear Security Administration (NNSA) within the DOE. NNSA's Office of Defense Programs funds nuclear stockpile stewardship program activities, while support for other national security and homeland security work comes from the NNSA Office of Defense Nuclear Nonproliferation, as well as the Department of Homeland Security and various Department of Defense sponsors. Other DOE offices and federal sponsors also contribute to research at LLNL.

Business Partner

LLNL's **Office of Economic Development** includes the Livermore Valley Open Campus (LVOC) (www.llnl.gov/lvoc), the High Performance Computing Innovation Center (HPCIC) (hpcic.llnl.gov) and Industrial Partnerships Office (IPO) (ipo.llnl.gov). The Office of Economic Development is focused on public/private partnerships and growing high-technology business opportunities in the Tri-Valley area and greater San Francisco Bay region. These goals are enhanced by extensive relationships with regional business-supporting organizations such as the Bay Area Council, East Bay EDA, Silicon Valley Leadership Group and Innovation Tri-Valley Leadership Group.

The LVOC is a joint collaboration between Lawrence Livermore and Sandia Laboratories/California. It is an open, unclassified research and development space of approximately 110 acres on the east side of the

Laboratory sites designed to better facilitate interactions with industry and academia on research in such fields as high performance computing, energy and environmental security, economic security, cyber security and non-proliferation. The HPCIC is the first facility on the Lawrence Livermore portion of the LVOC. This interim facility opened in 2010 and provides unprecedented, "game changing", computing resources to United States industry to help solve their business and proprietary challenges.

IPO is the conduit through which the Laboratory connects industry partners with Laboratory-developed technologies. Partnering arrangements vary, but can include work for others agreements and Cooperative Research and Development Agreements, which are designed to support new business ventures with Laboratory

Connecting industry partners with Lab technologies

MICROMETRICS, INC. MicroMetrics was created to commercialize LLNL's contact stress sensor technology. This unique sensor measures the squeezing force between two surfaces with unparalleled sensitivity. The sensor's unique properties are derived from the silicon-based manufacturing process employed. The market for MicroMetrics is dedicated to the widespread use of these sensors in a number of markets, including tactile sensing in robotics, prosthetics, shoe insoles, and batteries. The company is selling sensor kits to R&D participants in these industries to gain traction for potential widespread incorporation in future products.

DNATREK, LLC: DNATREK was formed to commercialize LLNL's DNATrax patented technology. DNATrax was invented at LLNL as a biosecurity simulant to test bioaerosol instruments that detect the release of pathogens. While DNATREK will supply government agencies with the important biosecurity simulant, the major market for the commercialization of DNATrax is in food safety and traceability. DNATrax will provide a more efficient and effective way for food safety issues to be resolved and promises to have an impact on this nearly \$14 billion market.

ECONOMIC IMPACT – LAWRENCE LIVERMORE NATIONAL LABORATORY

expertise. IPO has also spearheaded a Laboratory partnership with angel capital leader Keiretsu Forum (keiretsuforum.com) to further stimulate private sector commercialization opportunities. IPO has generated active commercial licenses with some 116 companies in the United States and internationally, including 49 in California alone. Licensing and royalty income in recent years has topped \$10 million annually, and has represented more than \$400 million in annual sales of products based on LLNL technologies.

LLNL's **Supply Chain Management Department** is responsible for purchasing high-quality supplies and services required by the Laboratory in a cost-effective and timely manner, while meeting socioeconomic compliance requirements and applicable DOE regulations identified in the Laboratory's Prime Contract with DOE/NNSA.

In Fiscal Year 2014, LLNL awarded \$444 million in procurements to a diverse group of large and small business concerns, both in California and across the nation, for a broad range of products and services which support the Laboratory's overall mission. California awards topped \$158 million.

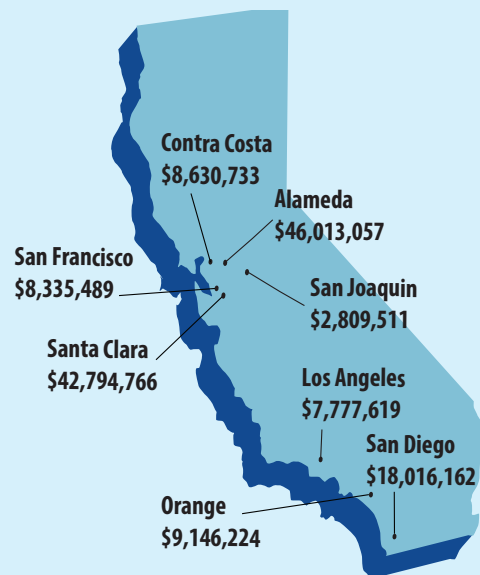
Community Partner

Laboratory employees are active participants in a broad range of community and civic affairs throughout the greater Tri-Valley area. Their presence also constitutes a more than \$720 million payroll base that directly impacts the regional economy. This equates to approximately \$60 million in monthly salary.

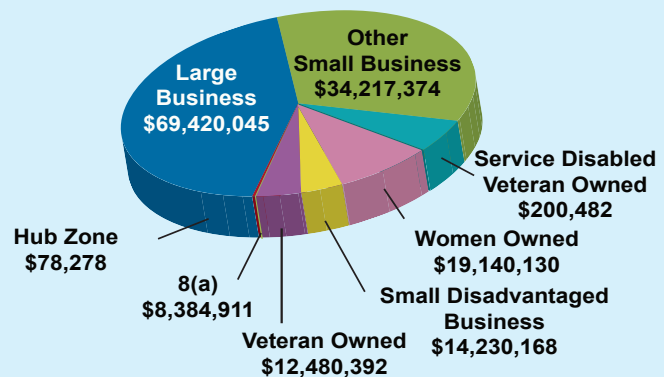
LLNS and Laboratory employees give back to the community through various giving programs. Principally, they support the community through the annual employee donation campaign, Helping Others More Effectively, or HOME. Last year, the campaign raised \$3.3 million, which was distributed to hundreds of regional non-profit and support agencies. Additionally, the LLNS annual \$100,000 Community Gift Program supports dozens of organizations primarily involved in science, math education and cultural arts.

\$444M Total Procurement Awards
\$158M CA Procurement Awards

TOP CALIFORNIA PROCUREMENT AWARDS BY COUNTY



CA PROCUREMENT AWARDS BY SOCIOECONOMIC CATEGORY



To learn more about LLNL go to www.llnl.gov or contact the Public Affairs Office at 925-422-4599.



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